

FEASIBILITY STUDY

Apex, Hunter Street Extension
From Salem Street to Old Raleigh Road
Wake County
~~U-1155~~ PW U-2301

Prepared by
Planning and Research Branch
Division of Highways
N. C. Department of Transportation

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I. DESCRIPTION

This report covers a preliminary study of the proposed extension of Hunter Street (SR 1160) from Salem Street (SR 1101) to Old Raleigh Road (SR 1435) just east of Laura Duncan Road (SR 1308) in Apex. General location of the 0.45-mile facility is shown on Figure 1. This project was approved by the Board of Transportation for small urban project funding in October, 1984. However, due to higher cost, the project is restudied for consideration for possible inclusion in the Transportation Improvement Program.

II. PURPOSE OF PROJECT

The proposed project is part of the mutually adopted thoroughfare plan for Apex (see Figure 2). The new facility would provide a continuous east-west thoroughfare, relieve downtown congestion, and link existing development with growing business and residential areas. Also, the proposed connection would improve access to the Apex High School complex located on Hunter Street from other areas of Apex.

Hunter Street is a two-lane, 40-foot curbed facility serving approximately 3000 vehicles per day. Old Raleigh Road has a two-lane, 20-foot pavement with 6-foot shoulders, and it carries approximately 1500 vpd. Both facilities are primarily surrounded by residential development.

The proposed extension would be expected to attract about 3000 vpd initially and 5000 vpd in twenty years. Proposed location for the new facility traverses predominantly woodland and open fields and involves two crossings of the CSX Transportation (formerly Seaboard System Railroad) tracks. The proposed crossing immediately east of Salem Street carries 2 train movements per day and the other proposed crossing carries 8 train movements per day.

III. RECOMMENDATIONS AND COSTS

The proposed extension is justified since it is an important element of the approved thoroughfare plan.

A two-lane cross section of 24-foot pavement with 8-foot shoulders is recommended for the new roadway. The proposed construction can be contained within a 70-foot right of way width. A left turn lane should be provided on the new road's approach to its intersection with Hunter Street and Salem Street.

Both railroad crossings will require installation of flashing signals and gates.

Total estimated cost for the extension is \$770,000, including \$450,000 for construction, \$180,000 for signals and gates, and \$140,000 for right of way and utility adjustment. However, with local participation, the above cost would be reduced to approximately \$620,000. According to Town officials, the following have been committed toward the project: (1) \$25,000 by the Town of Apex; (2) \$75,000 by a developer; and (3) donation of right of way valued at approximately \$50,000 by a property owner.

IV. ALTERNATIVES

No other location for an extension of Hunter Street to Old Raleigh Road was found to be reasonable or feasible.

The recommended alignment ties directly into the intersection of Hunter Street and Salem Street. However, it would require portions of the two streets to be lowered to accommodate a reasonable grade for the new road as it crosses the CSX Transportation tracks adjacent to Salem Street. An approximate design speed of 35 MPH appears to be the maximum that could be achieved through this intersection. It is dictated by the proximity and elevations of Salem Street and the railroad. Although less than desirable, the limited design speed is acceptable for the function of the proposed facility and is prudent in minimizing property damage along Hunter Street and Salem Street. A greater design speed would incur significant damage to abutting residential development along Hunter Street.

Possible relocation of the railroad tracks away from Salem Street to provide a better grade along the extension was considered but is not recommended. Relocating the tracks would cost approximately \$200,000 for construction and would require acquisition of additional right of way for the placement of the new tracks.

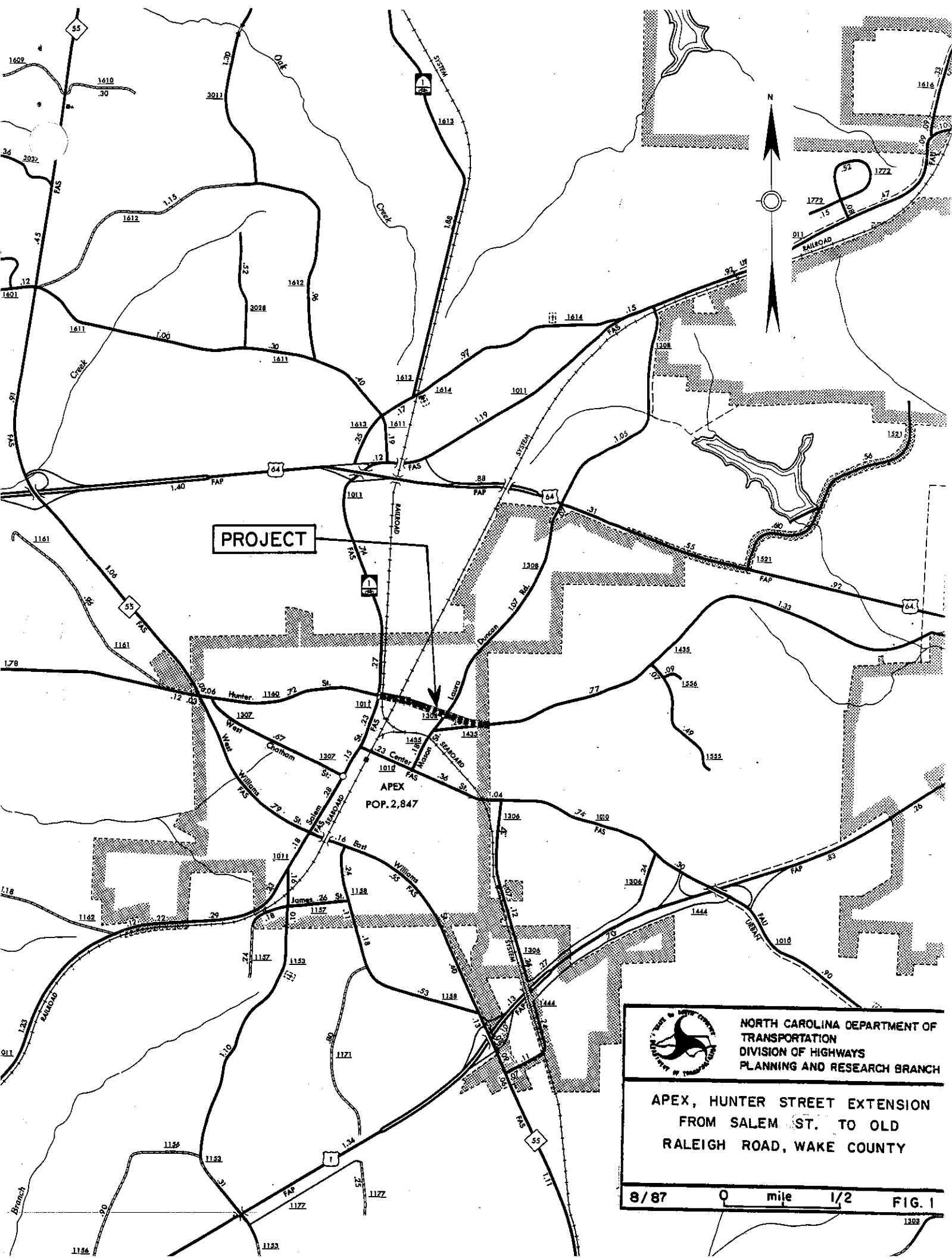
V. OTHER COMMENTS

The project should have no significant impact on the overall environment. The recommended location and design would not require any displacement of residences or businesses. Some farmland would be lost due to the necessary right of way for the extension.

Town officials have designated this project as their top highway need and consider it essential for future growth and development. Their interest in the project is strongly supported by commitment of local resources mentioned earlier in this report.

If the project is to be implemented at a future date, all feasible alternatives and their associated impacts will have to be evaluated in a planning/environmental document prior to that time, and a final decision made as to the most appropriate improvement.

RGD/sdt



NORTH CAROLINA DEPARTMENT OF
TRANSPORTATION
DIVISION OF HIGHWAYS
PLANNING AND RESEARCH BRANCH

APEX, HUNTER STREET EXTENSION
FROM SALEM ST. TO OLD
RALEIGH ROAD, WAKE COUNTY

8/87 0 mile 1/2 FIG. 1

